

IN THE CLAIMS

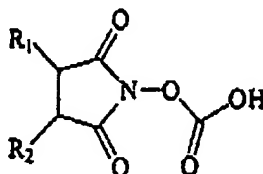
Claim 1-26 (cancelled)

27 (new): A process comprising:

(i) reacting a polymer, having a functional group, with an activating reagent such that the activating reagent reacts with the functional group, to yield a first reaction product having an activated functional group; and

(ii) reacting the first reaction product with a derivatizing reagent such that the derivatizing reagent reacts with the activated functional group, to yield as a second reaction product a derivatized polymer;

the activating reagent being a derivative of a compound of the structure



wherein R₁ and R₂ are straight-chain, branched-chain, or bridged as a carbocycle or a heterocycle; and

the functional group is selected from OH, NHR₁₁, SH, OSO₃H, SO₃H, OPO₃H₂, OPO₃HR₁₁, PO₃H₂, PO₃HR₁₁ and COOH, with R₁, R₂ and R₁₁ selected such that the process can be carried out in homogeneous phase.

Claim 28 (new): The process of claim 27 wherein the derivatizing reagent has the general composition HY-R₁₂, with Y selected from O, NH, NR₁₃ and S, and R₁₂ and R₁₃ are freely selected.

Claim 29 (new): The process of claim 27 wherein the polymer has two such functional groups separated by a non-substrate-specific functional group and/or by a monomer unit without a functional group, step (i) yields the first reaction product with two activated functional groups, and step (ii) yields the second reaction product with two derivatized groups separated by said non-substrate-specific functional group and/or by said monomer unit, the derivatized groups being able to interact with a suitable substrate as receptor groups.

Claim 30 (new): The process of 27 further comprising:

(iii) binding a substrate to the derivatized group of the second reaction product via a non-covalent interaction.

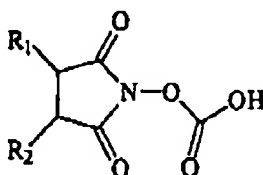
Claim 31 (new): The process of 30 wherein the binding takes place via at least two different types of said non-covalent interaction.

Claim 32 (new): A polymer prepared by the process of any one of claims 27-31.

Claim 33 (new): A process comprising:

(i) reacting a polymer, having a functional group, with a derivative of an activating reagent such that the derivative of the activating reagent reacts with the functional group, to yield as a reaction product a derivatized polymer;

the activating reagent being a derivative of a compound of the structure



wherein R_1 and R_2 are straight-chain, branched-chain, or bridged as a carbocycle or a heterocycle; and

the functional group is selected from OH, NHR_{11} , SH, OSO_3H , SO_3H , OPO_3H_2 , OPO_3HR_{11} , PO_3H_2 , PO_3HR_{11} and COOH, wherein R_1 , R_2 and R_{11} are selected such that the process can be carried out in homogeneous phase.

Claim 34 (new): The process of claim 33 wherein the derivative of the activating reagent is obtained by prior reaction of the activating reagent with a derivatizing reagent.

Claim 35 (new): The process of claim 34 wherein the derivatizing reagent has the general composition $HY-R_{12}$, with Y selected from O, NH, NR_{13} and S, and R_{12} and R_{13} can be freely selected.

Claim 36 (new): The process of claim 33 wherein the polymer has two such functional groups separated from each other by a non-substrate-specific functional group and/or by a monomer unit without a functional group, and step (i) yields the reaction product with two derivatized groups separated by said non-substrate-specific functional group and/or by said monomer unit, the derivatized groups being able to interact with a suitable substrate as receptor groups.

Claim 37 (new): The process of 33 further comprising:

(ii) binding a substrate to the derivatized group of the reaction product via a non-covalent interaction.

Claim 38 (new): The process of 37 wherein the binding takes place via at least two different types of said non-covalent interaction.

Claim 39 (new): A polymer prepared by the process of any one of claims 33-38.